



September 16, 2020

EPA Overview & Update: Cathedral Park Project Area

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Caleb Shaffer, EPA Region 10 Portland Harbor Team Lead

Followed by Q&A Session with Public Agencies

- **Dave Lacey**, Oregon Department of Environmental Quality
- **Dave Farrer**, Oregon Health Authority
- **Beth Appert**, Multnomah County Environmental Health
- **Jessica Terlikowski**, City of Portland
- **Annie Von Burg**, City of Portland
- **Jim McKenna**, Oregon Governor's Office

Agenda



Source: Fayley Meade

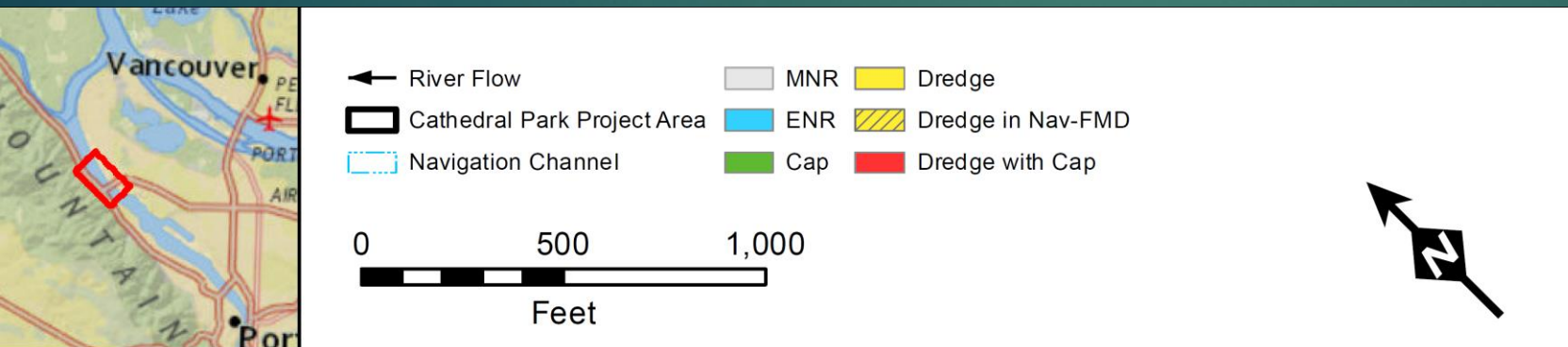
Cathedral Park Project Area Overview

Remedial Design Update

Community Ideas Shared with Public Agencies

Q&A Session with Public Agencies





Cathedral Park Project Area



Source Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

What information exists on health and ecological risk?

Cathedral Park Project Area

| Activity | Lifetime Risk |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
|  Playing or wading on the Cathedral Park beach area | Very Low after evaluating cancer-causing chemicals on the beach (arsenic and carcinogenic polycyclic aromatic hydrocarbons or PAHs). |
|  Eating resident fish caught offshore of the Cathedral Park project area | High because of fish eating cancer-causing polychlorinated biphenyl (PCB) contamination offshore. |
|  Swimming near the Cathedral Park beach area | Very Low because contamination is bound to sediment; not the water. |
|  Aquatic dependent wildlife and organisms living in the area | High because of in-water sediment PCBs and PAHs (for organisms that live in the sediment). |

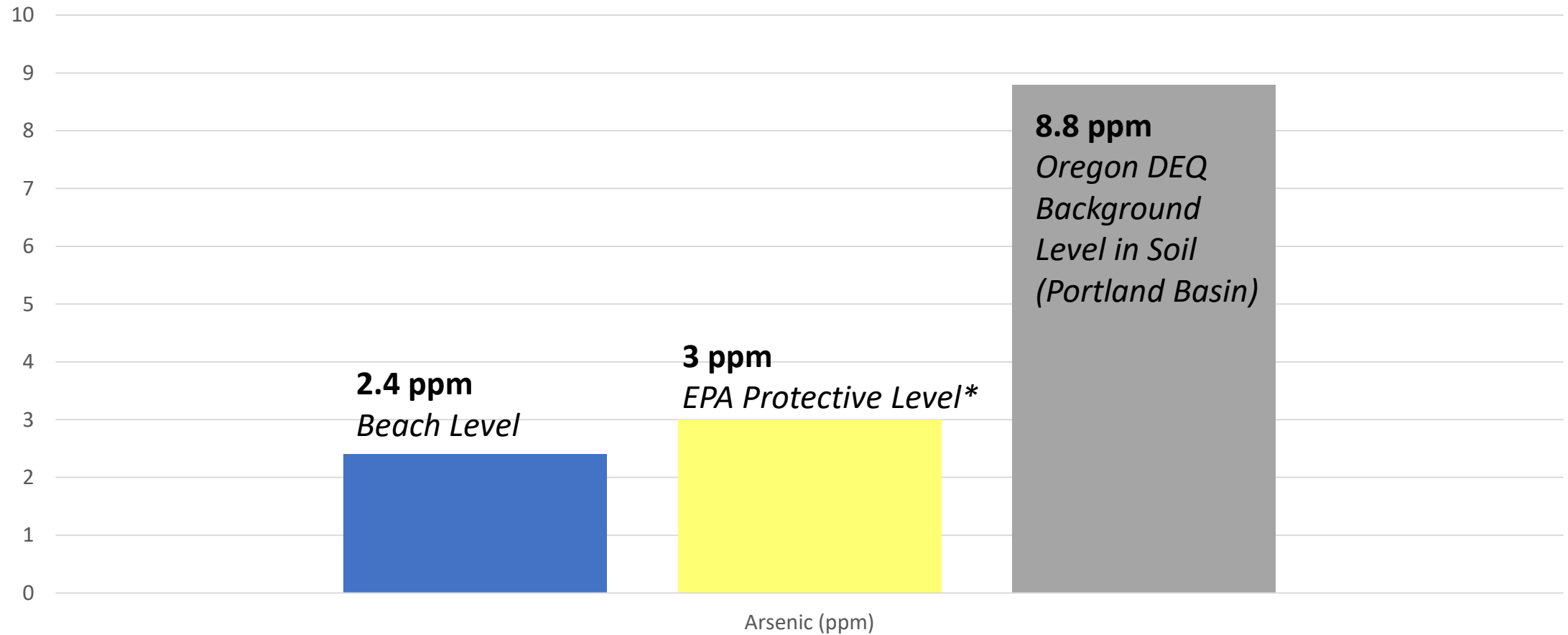
Sampling at the Cathedral Park Project Area

When? Where? What?

| | Cathedral Park Area: Beach | Cathedral Park Project Area: Offshore | Ecological Samples |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Number of samples | 6 individual samples* <i>*Collected and mixed to represent the beach area</i> | ~20 surface and below surface sediment samples | 3 clams & worms 2 crayfish 1 sculpin Many smallmouth bass 3 lamprey 1 osprey egg Shorebird habitat survey |
| When? | October 11, 2002 | 2004-2009, 2012, 2018-2019 | 2002, 2004-2009 |
| What? | Main COCs Found: <ul style="list-style-type: none"> Arsenic Polycyclic Aromatic Hydrocarbons (PAHs) | Main COCs Found: <ul style="list-style-type: none"> Polychlorinated Biphenyls (PCBs) | PCBs near Cathedral Park Project Area (and throughout the Site) pose a primary risk to wildlife. |

Arsenic Levels

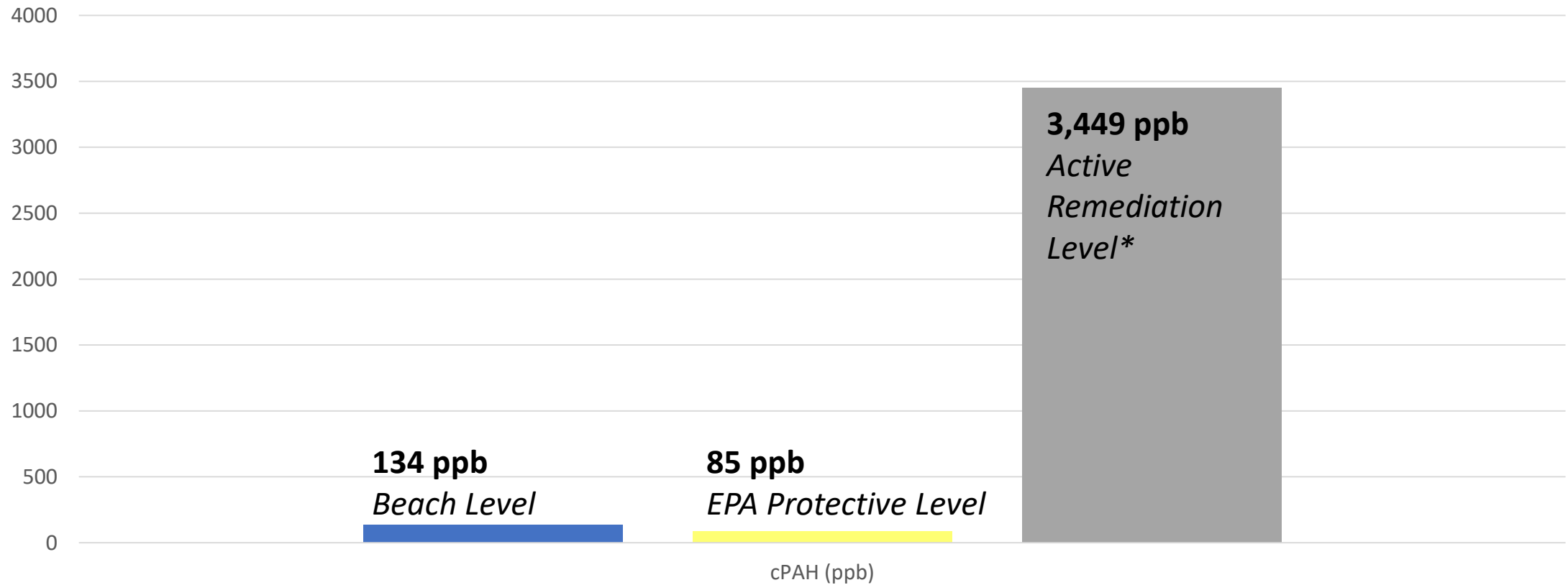
Cathedral Park Beach



* Lower Willamette River sediment background concentration from upstream of Sellwood Bridge to Willamette Falls.

Carcinogenic PAH Levels

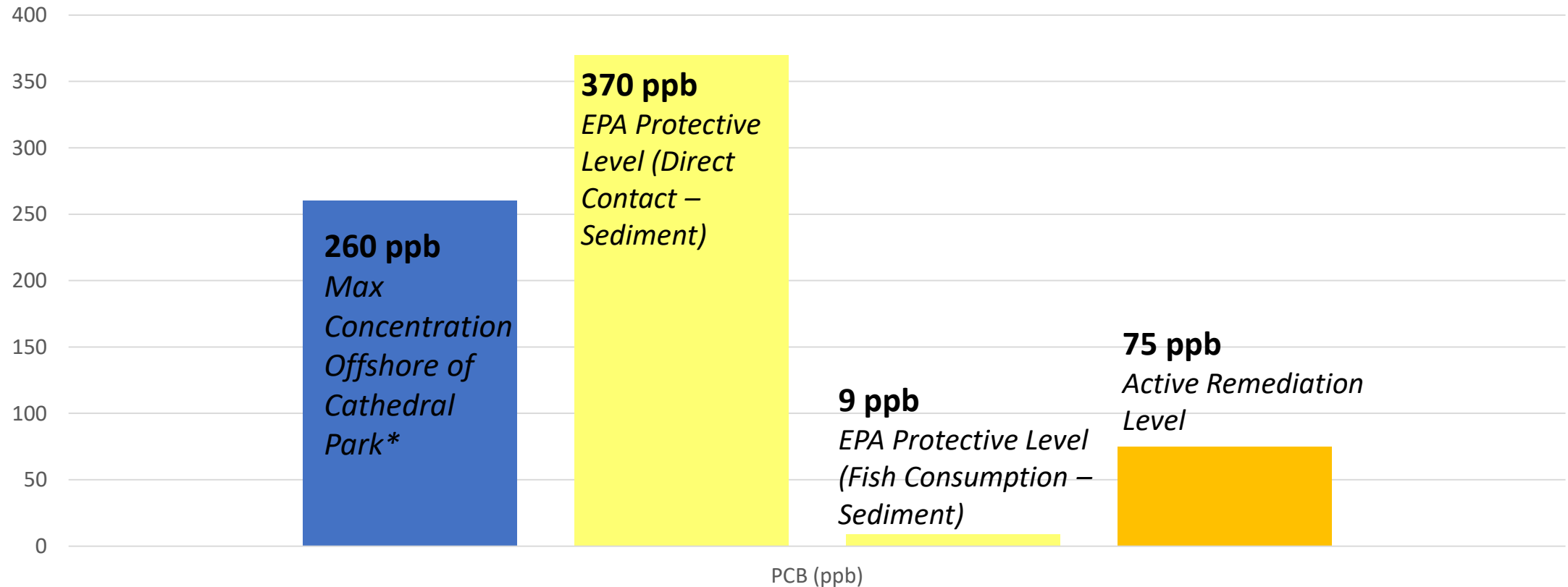
Cathedral Park Beach



* EPA Active Remediation Level (also called Remedial Action Level or RAL) is based on Total PAHs. Carcinogenic PAHs concentration of 3,449 ppb is equivalent to the Total PAHs Remedial Action Level of 30,000 ppb.

PCB Levels

Offshore of Cathedral Park Project Area



* Higher concentrations of total PCBs are present in sediment offshore of the upstream and downstream industrial properties.

Questions?

Remedial Design Update

For Cathedral Park Project Area

- ▶ **August 18th:** EPA met with landowners
- ▶ **September 1st:** EPA requested progress update on remedial design from landowners
 - ▶ No remedial design offers received to-date
- ★ **Spring 2021:** EPA plans to conduct remedial design sampling
 - ▶ Planning during this fall and winter
- ▶ **EPA is considering all options to move remedial design forward**

Community Ideas Shared with Public Agencies

Cathedral Park Project Area

| Proposed Idea (Short-term) | Who? | Current Work |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Outreach Material (including infographics) | EPA, DEQ, State of Oregon, Oregon Health Authority (OHA), City of Portland, Multnomah County, Oregon State University (OSU) | <ul style="list-style-type: none">• Cathedral Park infographic by OSU in development |
| Follow-Up Conversation with City on Master Plan | City of Portland | <ul style="list-style-type: none">• In progress |
| More Sampling | EPA, Working Parties (TBD) | <ul style="list-style-type: none">• EPA starting planning for EPA-led remedial design sampling in Spring 2021 |
| Improved information management (including signage) | EPA, City of Portland, State of Oregon, OHA | <ul style="list-style-type: none">• City & State Needs Assessment (due to EPA in November 2020)• OHA Cathedral Park website update underway• EPA website update and/or Story Map in progress |

Community Ideas Shared with Public Agencies

Cathedral Park Project Area

To Consider Later
(during remedial design)

| Proposed Idea (Longer-term) |
|------------------------------------------------------------------------|
| Increased access to site-wide information and data (including signage) |
| Washing station/facility improvements or upgrades |
| Sand replacement |
| Bioremediation and salmon habitat |

Q&A Session with Public Agencies

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Extra Slides

Human Health Risk

Beach User Exposure









| Factors | Conservative Assumptions |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  Time Spent Recreating | <ul style="list-style-type: none"> 3 months (every day) of each year    30 years |
|  Age | <ul style="list-style-type: none"> Child Adult |
|  Skin Exposure on Beach & While Swimming | <ul style="list-style-type: none"> Beach: Wearing shorts and a t-shirt. In-water: Whole body |
|  Eating Sediment | <ul style="list-style-type: none"> Child ate about a full pea of sediment per day Adult ate about a half pea of sediment per day |
|  Safety | A 'cushion' is included in risk calculations because even conservative assumptions have uncertainty. |



Photo Source: Public Domain

Eating Resident Fish Caught *from Cathedral Park Area*

Recommended maximum meals, per month



Bass - 0 meals per month



Brown Bullhead - 0 meals per month



Carp - 0 meals per month



Black Crappie - 2 meals per month (or 4 meals if fillet only)

When Cleanup Begins...

The Oregon Health Authority (OHA) will recommend that NO resident fish be eaten from the Lower Willamette River due to sediment disruption from these activities.

Previous Sampling *Cathedral Park Project Area*

Source: CDM Smith (Kyle Vickstrom and Tom Cook)

